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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

IQBAL, KHAWAR

ART UNIT PAPER NUMBER

2617

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/733,990

Applicant(s)

HAN ET AL.

Examiner

Khawar Iqbal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,5-22 is/are allowed.
- 6) ☒ Claim(s) 23-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 09-18-06 has been entered.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 23-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 23, the phrase "the ROT" on page 6, lines 10 and 13 of the claim lacks sufficient antecedent basis because it appears that the phrase 'the ROT' should be 'the ROTm'.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 23-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al (20020141349).

Regarding claim 23 Kim et al teaches in a mobile communication system, a base station system having a function of setting reverse activity bit (RAB) to control a load amount in a reverse link, comprising (figs. 1-10):

a ROT measurement unit measuring ROT<sub>m</sub> as a value of indicating a load degree of the reverse link; a ROT variation rate calculation unit calculating a variation rate of the ROT<sub>m</sub> (para. 0071-0073, 0123-129);

a first comparison unit comparing the ROT<sub>m</sub> measured in the ROT measurement unit to a reference value previously set to a level lower than a maximum ROT a base station can receive (para. 0071-0073, 0123-0124);

a second comparison unit comparing an increment rate of the variation rate of the ROT calculated from the ROT variation rate calculation unit to a previously set upward reference value (para. 0071-0073, 0119-0129);

and a third comparison unit comparing a decrement rate of the variation rate of the ROT calculated from the ROT variation rate calculation unit to a previously set downward reference value (para. 0045-0047, 0071-0073, 0119-0129).

Regarding claim 24 Kim et al teaches a RAB generation unit generating RAB to lower transmission data rate to terminals in a cell or sector when the

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ROT<sub>m</sub> exceeds the reference value (ROT<sub>m\_th</sub>), the RAB generation unit generating the RAB to lower data rate for a predetermined slot length when the ROT<sub>m</sub> fails to exceed the reference value and the increment rate of the variation rate of the ROT calculated from the ROT variation rate calculation unit exceeds the ROT<sub>Up</sub>, the RAB generation unit generating the RAB to raise the data rate when the ROT<sub>m</sub> fails to exceed the reference value and the increment rate of the variation rate of the ROT calculated from the ROT variation rate calculation unit fails to exceed the ROT<sub>Up</sub> (para. 0071-0073, 0119-0129).

Regarding claim 25 Kim et al teaches wherein the RAB lowers the data rate, which is generated when the ROT<sub>m</sub> exceeds the reference value (ROT<sub>m\_th</sub>), is maintained each slot until the ROT<sub>m</sub> goes below the reference value (ROT<sub>m\_th</sub>) (para. 0071-0073, 0119-0129).

Regarding claim 26 Kim et al teaches wherein when the measured ROT fails to exceed the reference value (ROT<sub>m\_th</sub>) and the decrement rate of the variation rate of the ROT downwardly exceeds a previously set downward reference value (ROT<sub>Down</sub>), the RAB is generated to raise the data rate prior to a currently set RAB (para. 0071-0073, 0119-0129).

Regarding claim 27 Kim et al teaches wherein the predetermined slot length is set shorter as the ROT<sub>m</sub> gets lower (para. 0071-0073, 0119-0129).

Regarding claim 28 Kim et al teaches wherein the predetermined slot length is set longer as the ROT<sub>m</sub> gets closer to the reference value (ROT<sub>m\_th</sub>) (para. 0071-0073, 0119-0129).

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Regarding claim 29 Kim et al teaches wherein the predetermined slot length is calculated based on following equation: slot length= $a/\text{ROT}(\text{ROTm\_th}[\text{dB}]-\text{ROT\_Measured}[\text{dB}])$ , where Slot\_Length is the predetermined slot length, the ROT\_measured is a measured ROT value (ROTm), and 'a' is a proportional constant related to slot length (para. 0071-0073, 0119-0129).

Regarding claim 30 Kim et al teaches wherein the mobile communication system is a 1xEV-DO system (para. # 0065).

### ***Response to Arguments***

5. Applicant's arguments filed 09-18-06 have been fully considered but they are not persuasive. Examiner has thoroughly reviewed applicant's arguments but firmly believes the cited reference to reasonably and properly meets the claimed limitations. Applicant's argument was regarding claim 23 that "a ROT variation rate calculation unit". In response, examiner would like to point out that Kim teaches controlling of a transmission rate of a reverse link is performed in more than one state (data rate adjust information e.g., increase states +1, decrease states, -1 or maintain states 0) and determines a position of each mobile based on the rate control bit (RCB) position in the channel slots. The base station determines the total interference amount (ROT) received by the base station in the unit of time having a particular period. The base station then uses the detected ROT value to update the BS\_RCV. If the detected ROT value is below

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ROT\_TH1, BS\_RCV increases by 1, and if the ROT value is below ROT\_TH2, BS\_RCV decreases by -1. However, if the ROT is maintained within a range between ROT\_TH1 and ROT\_TH2, the BS\_RCV value is maintained at its previous value (para. 0045-0047, 0071-0073, 0119-0129).

***Allowable Subject Matter***

6. Claims 1,5-22 are allowed, in view of Applicant's amendments and arguments filed 09-18-06.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khawar Iqbal whose telephone number is 571-272-7909.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GEORGE ENG can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

*Khawar Iqbal*

  
GEORGE ENG  
SUPERVISORY PATENT EXAMINER